

-continued

ctccagcata caccatctcc ctactcctcc actgtgtccg tgggaacagc caaaacatat	720
ggacagacct cgcgtgccac acggcctggc cattgoggac tggccgagaa acagcattgt	780
ggaccagtca accctctgct gggagctgct actccaacag ggaacaacaa gaggcggaaa	840
ctgtgttccg gcaatacgac acctatcatt cacctcaagg tcgacagaaa ctccctgatg	900
agactgagat accggctgag aaagcactcc gatcactaca gagatatcag ctctacttgg	960
cattggacag gtgctggaaa cgaaaagaca gggatcctga cagtgcagta tcactccgag	1020
actcagcgca ccaaatctct caatactgtg gccattcccg attccgtgca gattcttgtc	1080
ggatatatga cgatg	1095

1. A vaccine combination comprising:

- a) a first vaccine comprising an immunologically effective amount of one or more recombinant adenovirus vectors together comprising a first nucleic acid encoding a first polypeptide comprising the amino acid sequence of SEQ ID NO: 1 and a second nucleic acid encoding a second polypeptide comprising the amino acid sequence of SEQ ID NO: 20, together with a pharmaceutically acceptable carrier; and

- b) a second vaccine comprising an immunologically effective amount of a recombinant Modified Vaccinia Ankara (MVA) vector comprising a third nucleic acid encoding a third polypeptide comprising the amino acid sequence of SEQ ID NO: 1 and a fourth nucleic acid encoding a fourth polypeptide comprising SEQ ID NO: 20, together with a pharmaceutically acceptable carrier;

wherein the MVA vector comprises MVA-BN or derivatives thereof.

2. The vaccine combination according to claim 1, wherein the first vaccine and the second vaccine each further comprise a nucleic acid encoding a fifth polypeptide comprising the amino acid sequence of SEQ ID NO: 28 and a nucleic acid encoding a sixth polypeptide comprising the amino acid sequence of SEQ ID NO: 31.

3. The vaccine combination according to claim 1, wherein the first polypeptide and the third polypeptide each further comprise the amino acid sequence of SEQ ID NO: 28 and wherein the second polypeptide and the fourth polypeptide each further comprise the amino acid sequence of SEQ ID NO: 31.

4. A vaccine combination according to claim 1, wherein the first nucleic acid and the third nucleic acid each encode a polypeptide comprising the amino acid sequence of SEQ ID NO: 3, and wherein the second nucleic acid and the fourth nucleic acid each encode a polypeptide comprising the amino acid sequence of SEQ ID NO: 22.

5. The vaccine combination according to claim 1, wherein the first nucleic acid and the third nucleic acid each have at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 2, and the second nucleic acid and the fourth nucleic acid each have at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 21.

6. The vaccine combination according to claim 4, wherein the first nucleic acid and the third nucleic acid each have at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 4 or SEQ ID NO: 24 and the second nucleic

acid and the fourth nucleic acid each have at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 23 or SEQ ID NO: 25.

7. The vaccine combination according to claim 1, wherein the recombinant adenovirus vector is rAd26.

8. The vaccine combination according to claim 1, wherein the first vaccine comprises a first recombinant adenovirus vector comprising the first nucleic acid and a second recombinant adenovirus comprising the second nucleic acid.

9. A recombinant Modified Vaccinia Ankara (MVA) vector comprising: (a) a first nucleic acid encoding at least one of a polypeptide comprising the amino acid sequence of SEQ ID NO: 1 and a polypeptide comprising the amino acid sequence of SEQ ID NO: 3, and (b) a second nucleic acid encoding at least one of a polypeptide comprising the amino acid sequence of SEQ ID NO: 20 and a polypeptide comprising the amino acid sequence of SEQ ID NO: 22;

wherein the MVA vector is MVA-BN or derivatives thereof.

10. The recombinant Modified Vaccinia Ankara (MVA) vector according to claim 9, wherein the first nucleic acid encodes the polypeptide comprising the amino acid sequence of SEQ ID NO: 1, and the second nucleic acid encodes the polypeptide comprising the amino acid sequence of SEQ ID NO: 20.

11. The recombinant MVA vector according to claim 9, wherein the first nucleic acid encodes the polypeptide comprising the amino acid sequence of SEQ ID NO: 3, and the second nucleic acid encodes the polypeptide comprising the amino acid sequence of SEQ ID NO: 22.

12. The recombinant MVA vector according to claim 10, wherein the first nucleic acid has at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 2, and the second nucleic acid has at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 21.

13. The recombinant MVA vector according to claim 11, wherein the first nucleic acid has at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 4 or SEQ ID NO: 24, and the second nucleic acid has at least 90% sequence identity to the polynucleotide sequence of SEQ ID NO: 23 or SEQ ID NO: 25.

14. A recombinant MVA vector comprising at least one nucleic acid encoding at least one polypeptide selected from the group consisting of polypeptides comprising the amino acid sequences of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 20, and SEQ ID NO: 22, wherein the at least one nucleic